









































































































































































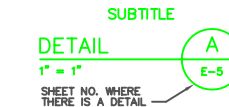
SYMBOL	DESCRIPTION
	CEILING OUTLET AND INCANDESCENT OR H.I.D. TYPE LUMINAIRE "3" INDICATES BRANCH CIRCUIT NUMBER, "4" INDICATES CONTROLLING SWITCH
	CEILING FIXTURE, OUTLET AND FLUORESCENT LUMINAIRE, NOTATIONS SAME AS ABOVE.
	WALL OUTLET AND INCANDESCENT OR H.I.D. LIGHTING FIXTURE.
	EMERGENCY LIGHTING BATTERY UNIT WITH TWO LAMP HEADS
	REMOTE ADJUSTABLE EMERGENCY LAMP HEAD
	HID OR INCANDESCENT LUMINAIRE ON EMERGENCY CIRCUIT
	WALL OUTLET AND EXIT SIGN, DIRECTIONAL ARROWS AS NOTED
	SHORT DASH FOR EACH PHASE CONDUCTOR, LONG DASH FOR NEUTRAL CONDUCTOR, NO. 12 AWG, 3/4" UNLESS OTHERWISE NOTED. EQUIPMENT GROUNDING CONDUCTOR IS SHOWN. NOTE: DASH MARKS ARE OMITTED FOR CIRCUITS CONSISTING OF 2#12, 1#12G, 3/4" UNLESS OTHERWISE NOTED)
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	CONDUIT STUBBED OUT AND CAPPED
	CONDUIT RUN EXPOSED, (2#12, 1#12G, 3/4" UNLESS OTHERWISE NOTED)
	CONDUIT RUN CONCEALED, (2#12, 1#12G, 3/4" UNLESS OTHERWISE NOTED)
	LIQUID/TITE FLEXIBLE CONDUIT
	"T" FITTING IN CONDUIT
	HOMERUN TO LIGHTING PANEL LP-1 SHALL BE 1", 2#12, 1#12G, UNLESS OTHER WISE NOTED
	HOMERUN TO BATTERY UNIT BU-1 SHALL BE 1", 2#12, 1#12G, UNLESS OTHER WISE NOTED
	HOMERUN TO MOTOR CONTROL CENTER MCC SHALL BE 1", 2#12, 1#12G, UNLESS OTHER WISE NOTED
	JUNCTION BOX
	DISTRIBUTION PANELBOARD
	LIGHTING PANELBOARD
	CONDUIT, SIZE AND FILL AS NOTED.
	THREE (3) NO.12 AWG CONDUCTORS AND ONE (1) NO.12 EQUIPMENT GROUNDING CONDUCTOR
	MULTI-CONDUCTOR, JACKETED POWER OR CONTROL CABLE, NUMBER AND SIZE OF CORE CONDUCTORS AS NOTED, QUANTITY AS NOTED IF MORE THAN ONE.
	INSTRUMENT CABLE, TWISTED PAIR OR TRIPLEX AS NOTED WITH OVERALL SHIELD AND JACKET, CONDUCTOR SIZE AND QUANTITY AS NOTED
	SINGLE POLE SWITCH, "s" INDICATES CONTROL OF LIGHTS "s"
	THREE WAY SWITCH, "s" INDICATES CONTROL OF LIGHTS "s"
	DUPLEX RECEPTACLE, 120V, 3W, SINGLE PHASE * C - MOUNTED ABOVE COUNTER TOP * GP - GROUND FAULT INTERRUPTER TYPE * WP - WEATHERPROOF 3 - BRANCH CIRCUIT NUMBER
	SINGLE RECEPTACLE, 240V, 3W, SINGLE PHASE, AMPERE RATING AS NOTED * TL - LOCKING TYPE * WP - WEATHERPROOF
	SINGLE RECEPTACLE, 480V, 4W, THREE PHASE, AMPERE RATING AS NOTED IF OTHER THAN 30 * WP - WEATHERPROOF
	DUPLEX RECEPTACLE AND FLOOR BOX
	ANALOG TERMINAL BOX PROVIDED BY DIVISION 11
	DISCRETE TERMINAL BOX PROVIDED BY DIVISION 11
	POWER (480 VOLT) TERMINAL BOX PROVIDED BY DIVISION 11
	TELEPHONE CABINET OR BACKBOARD AS SPECIFIED
	LIGHTING CONTACTOR, MECHANICALLY HELD TYPE
	ELECTRIC HEAT TRACE CONNECTION NOT REFER TO DETAIL
	PHOTOCELL
	MANUAL FIRE ALARM STATION
	HEAT ACTUATED FIRE DETECTOR (* INDICATES TEMPERATURE RATING)
	SMOKE DETECTOR
	FIRE ALARM HORN
	FIRE ALARM HORN AND LIGHT COMBINATION
	SPRINKLER FLOW ALARM SWITCH
	VALVE SUPERVISORY SWITCH
	WEATHER PROOF H-INTENSITY FIRE ALARM STROBE LIGHT
	DOOR SWITCH
	ELECTRIC DOOR STRIKE
	SECURITY MOTION DETECTOR
	SOLID STATE METERING & PROTECTION MODULE

ONE LINE OR ELEMENTARY DIA.	PLAN	DESCRIPTION
		LOW VOLTAGE CIRCUIT BREAKER, THREE POLE UNLESS NOTED OTHERWISE
		COMBINATION MOTOR CIRCUIT PROTECTOR AND MAGNETIC MOTOR STARTER, FULL VOLTAGE NON-REVERSING UNLESS NOTED OTHERWISE. * FVR - FULL VOLTAGE REVERSING * RWK - REDUCED VOLTAGE NON-REVERSING 2S1W - TWO SPEED, ONE WINDING 2S2W - TWO SPEED, TWO WINDING NUMERICAL INDICATES STARTER SIZE IF OTHER THAN SIZE 1
		NON-FUSIBLE DISCONNECT SWITCH, 800 VOLT, 3 POLE * AMPERE RATING NOTED IF OTHER THAN 30A
		FUSIBLE DISCONNECT SWITCH, 800 VOLT, 3 POLE * AMPERE RATING AND FUSE SIZE AS NOTED
		MANUAL MOTOR STARTER WITH THERMAL OVERLOAD HEATER "R" INDICATES RED RUNNING LIGHT
		TRANSFORMER, RATING AND CONNECTIONS AS NOTED
		CURRENT TRANSFORMER * QUANTITY AND CURRENT RATIO
		POTENTIAL TRANSFORMER * QUANTITY AND VOLTAGE RATIO
		LIGHTNING ARRESTER
		CAPACITOR
		GROUND OR GROUND ROD
		FUSE, AMPERE RATING AS NOTED
		MOTOR, NUMERAL INDICATES HORSEPOWER
		GENERATOR, RATINGS AND CONNECTIONS AS NOTED
		TACHOMETER GENERATOR
		VOLTMETER WITH SWITCH, 3 PHASE * RANGE AS NOTED
		AMMETER WITH SWITCH, 3 PHASE * RANGE AS NOTED
		METER - INDICATING/RECORDING TYPE * WM - WATTMETER * WH - WATTHOUR METER * WHD - WATTHOUR DEMAND METER * PF - POWER FACTOR METER * RT - RUNNING TIME METER * TRANSUCER * AX - CURRENT TRANSUCER * WX - WATT TRANSUCER * WHX - WATT/WATTHOUR TRANSUCER
		PROTECTIVE RELAY, NO. AS INDICATED: 27 - UNDERVOLTAGE RELAY 38 - BEARING PROTECTIVE DEVICE 42 - RUNNING CIRCUIT BREAKER OR CONTACTOR 46 - REVERSE PHASE, OR PHASE BALANCE, CURRENT RELAY 47 - PHASE SEQUENCE VOLTAGE RELAY 49 - MACHINE OR TRANSFORMER THERMAL RELAY 50 - INSTANTANEOUS OVERCURRENT, OR RATE-OF-RISE RELAY 50G- INSTANTANEOUS GROUND RELAY, ZERO SEQUENCE 51 - AS TIME OVERCURRENT RELAY 51N- AS TIME OVERCURRENT RELAY, NEUTRAL GROUND 88 - LOCKING-OUT RELAY 87 - DIFFERENTIAL PROTECTIVE RELAY
		UNIT HEATER - ELECTRIC HEATING COIL AND FAN
		UNIT HEATER - STEAM OR WATER HEATING COIL AND FAN
		KEY RESET STATION
		VOLTAGE OR CURRENT TEST BLOCK
		MECHANICAL CONNECTION OR INTERLOCK
		CONDUCTORS OR CONDUITS CROSSING PATHS BUT NOT CONNECTED
		CONDUCTORS ELECTRICALLY CONNECTED
		INDICATES LIMITS OF EQUIPMENT OR WIRING ENCLOSURE
		PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY CLOSED
		PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY OPEN
		EMERGENCY STOP PUSHBUTTON WITH RED MUSHROOM HEAD OPERATOR - MAINTAINED CONTACT, PUSH-TO-STOP PULL TO RESET.
		START-STOP PUSHBUTTON CONTROL STATION
		START-STOP PUSHBUTTON CONTROL STATION WITH LOCKOUT DEVICE ON STOP
		START-STOP PUSHBUTTON CONTROL STATION, MAINTAINED CONTACT WITH LOCKOUT DEVICE ON STOP
		TWO POSITION SELECTOR SWITCH, MAINTAINED CONTACT POSITION 1-CONTACT 2-CONTACT A X O X-CLOSED B O X O-OPEN * NAMEPLATE (A/B) LR - LOCAL/REMOTE
		THREE POSITION SELECTOR SWITCH, MAINTAINED CONTACT POSITION 1-CONTACT 2-CONTACT 3-CONTACT A X X O X-CLOSED B O O O-OPEN C O X O-OPEN * NAMEPLATE (A/B/C) HDA - HAND/OFF/AUTO LOR - LOCAL/OFF/REMOTE RSL - RAISE/STOP/LOWER

ONE LINE OR ELEMENTARY DIA.	PLAN	DESCRIPTION
		LIQUID LEVEL (FLOAT) SWITCH NORMALLY OPEN, CLOSSES ON RISING LEVEL NORMALLY CLOSED, OPENS ON RISING LEVEL
		PRESSURE OR VACUUM SWITCH NORMALLY OPEN, CLOSSES ON LOW PRESSURE SET POINT NORMALLY CLOSED, OPENS ON RISING PRESSURE
		TEMPERATURE ACTUATED SWITCH (THERMOSTAT) NORMALLY OPEN, CLOSSES ON RISING TEMPERATURE NORMALLY CLOSED, OPENS ON RISING TEMPERATURE
		FLOW SWITCH (AIR, WATER, ETC.) NORMALLY OPEN, CLOSSES ON INCREASED FLOW NORMALLY CLOSED, OPENS ON INCREASED FLOW
		POSITION (LIMIT) SWITCH NORMALLY OPEN NORMALLY OPEN - HELD CLOSED NORMALLY CLOSED NORMALLY CLOSED - HELD OPEN
		SOLENOID OPERATED VALVE
		STRIP HEATER OR HEATING ELEMENT
		SURGE CONTROL VALVE
		PILOT LIGHT, COLOR AS NOTED * R - RED * G - GREEN * A - AMBER * B - BLUE * W - WHITE
		PILOT LIGHT, PUSH TO TEST TYPE * COLOR AS NOTED ABOVE
		RELAY COIL, NUMBER AS INDICATED
		MOTOR STARTER COIL, NUMBER AS INDICATED
		CONTACT, NORMALLY OPEN (NO)
		CONTACT, NORMALLY CLOSED (NC)
		OVERLOAD RELAY HEATER (OL)
		TIME DELAY RELAY, RANGE AS NOTED NOTC - NORMALLY OPEN, TIMED CLOSE WHEN ENERGIZED NCTO - NORMALLY CLOSED, TIMED OPEN WHEN ENERGIZED NOTO - NORMALLY CLOSED, TIMED OPEN WHEN DE-ENERGIZED NCTC - NORMALLY CLOSED, TIMED CLOSE WHEN DE-ENERGIZED
		RESISTANCE TEMPERATURE DETECTOR
		MOTOR OPERATED VALVE, SERIAL LOOP CONNECTED
		FIELD INSTRUMENT, TAG NO. AS INDICATED ## - INDICATES LOOP NO. # - INDICATES INSTRUMENT TYPE AE - ANALYZING ELEMENT (PH, ORP, DO, ETC.) AT - ANALYZING TRANSMITTER DT - DENSITY TRANSMITTER FE - FLOW ELEMENT FS - FLOW SWITCH FT - FLOW TRANSMITTER FY - FLOW TRANSDUCER LE - LEVEL ELEMENT LS - LEVEL SWITCH LT - LEVEL TRANSMITTER PDS - PRESSURE DIFFERENTIAL SWITCH PT - PRESSURE TRANSMITTER SI - SPEED INDICATOR TE - TEMPERATURE ELEMENT TS - TEMPERATURE SWITCH TT - TEMPERATURE TRANSMITTER ZS - POSITION SWITCH HS - HAND SWITCH
		DAMPER MOTOR
		INDICATES THAT ALL LUMINAIRES WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE TYPE "A" UNLESS OTHERWISE NOTED
		INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF WATERTIGHT OR NEMA 4 CONSTRUCTION SUITABLE FOR USE IN A DAMP OR WET LOCATION
		INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X, CORROSION RESISTANT CONSTRUCTION SUITABLE FOR USE IN A WET LOCATION, UNLESS NOTED OTHERWISE
		INDICATES THAT ALL ELECTRICAL EQUIPMENT AND INSTALLATION WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL CONFORM TO N.E.C. REQUIREMENTS FOR THE HAZARDOUS AREA CLASSIFICATION SHOWN



SYMBOL WHERE THERE IS A DETAIL

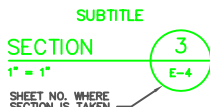


SYMBOL WHERE DETAIL IS DRAWN

DETAIL SYMBOL



SYMBOL WHERE THERE IS A DETAIL



SYMBOL WHERE SECTION IS DRAWN

SECTION SYMBOL

ABBREVIATIONS

AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AG	ABOVE GRADE
ALUM	ALUMINUM
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLF	CURRENT LIMITING FUSE
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL SWITCH
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DI	DOOR INTERLOCK
DN	DOWN
EC	EMPTY CONDUIT
ELEC	ELECTRICAL
ELEV	ELEVATION
EM	EMERGENCY
EO	ELECTRICALLY OPERATED
FBO	FURNISHED BY OTHERS
FO	FIBER OPTIC
FRP	FIBERGLASS REINFORCED POLYESTER
FU	FUSE
GCP	GENERATOR CONTROL PANEL
GEN	GENERATOR
G, GRD	GROUND
GF	GROUND FAULT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
HH	HANDHOLE
HT	HEIGHT
HZ	HERTZ
INST	INSTANTANEOUS
INSTR	INSTRUMENT
LA	LIGHTNING ARRESTER
LGTS	LIGHTS
LP	LIGHTING PANEL
MCC	MOTOR CONTROL CENTER
MFR	MANUFACTURER
MFM	MULTIFUNCTION METER
MH	MANHOLE
MTG	MOUNTING
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
OL	OVERLOAD
PFC	POWER FACTOR CORRECTION CAPACITOR
PH	PHASE
PR	PAIR
PT	POTENTIAL TRANSFORM